UK NEQAS
Leucocyte Immunophenotyping

Sheffield Teaching Hospitals NHS
NHS Foundation Trust

CD34 Stem Cell Programme

All Participant Report

Sample - 216

Distribution - 151603

Participant ID - 42981

Date Issued - 01 September 2015

Closing Date - 21 September 2015

Machine Used - Facscanto II

Trial Comments

The CD34 trial 151603 was issued to 315 participants for flow cytometric enumeration of CD34+ stem cells.

Sample Comments

The sample was manufactured by UK NEQAS using stabilised CD34+ samples and stabilised leucodepleted blood

Absolute Values Results and Performance

Please note: Performance monitoring for this programme is on absolute values only. Percentage results are shown for information purposes only.

Cell Population	Your Results (cells/µL)	Robust Mean (cells/µL)	Robust SD (cells/µL)
CD34 Absolute Values	52.00	21.87	2.19

Cell Population	z Score*	Performance Status for this Sample	Performance Status Classification Over 12 Sample Period		
			Satisfactory	Action	Critical
CD34 Absolute Values	13.76	Critical	0	2	5

Percentage Values Results and Performance

Cell Population	Your Results %	Robust Mean %	Robust SD %
CD34 Percentage Values	0.80	0.77	0.09

Cell Population	z Score*	Performance Status for this Sample	Performance Status Classification Over 12 Sample Period		
			Satisfactory	Action	Critical
CD34 Percentage Values	0.33	Satisfactory	1	6	0

***z Score Limits Definitions**

Please note the scale below is applicable to the tables above and to the z score histograms and Shewhart control charts that follow. It is not applicable to the Cusum control charts.

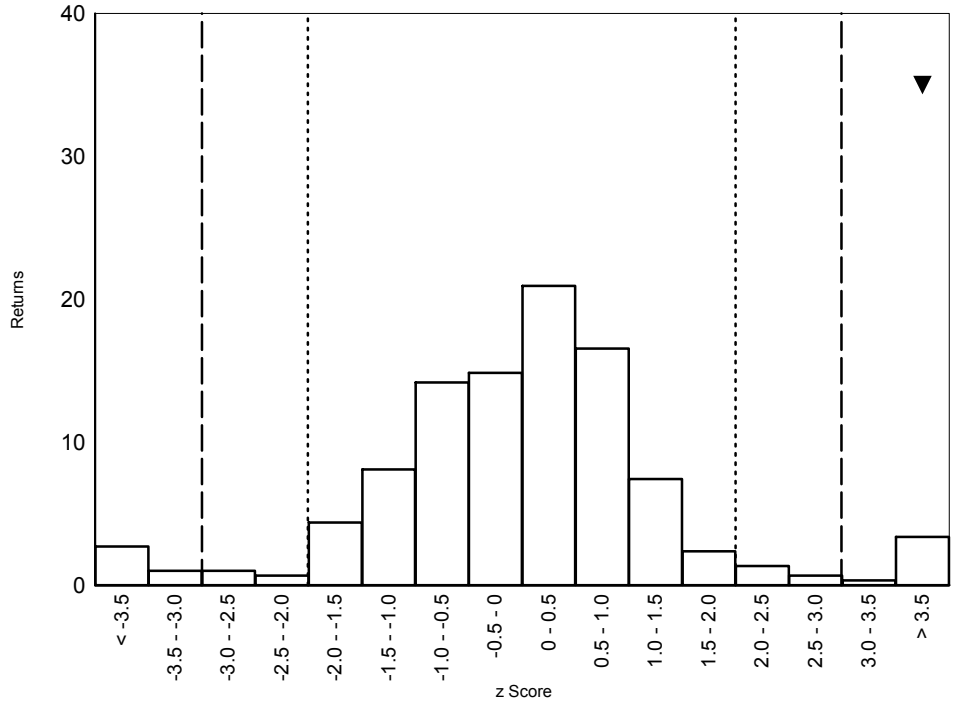
Sheffield Teaching Hospitals NHS Foundation Trust, a UKAS proficiency testing provider No. 7804, operating UK NEQAS for Leucocyte Immunophenotyping.

CD34 Stem Cell Programme

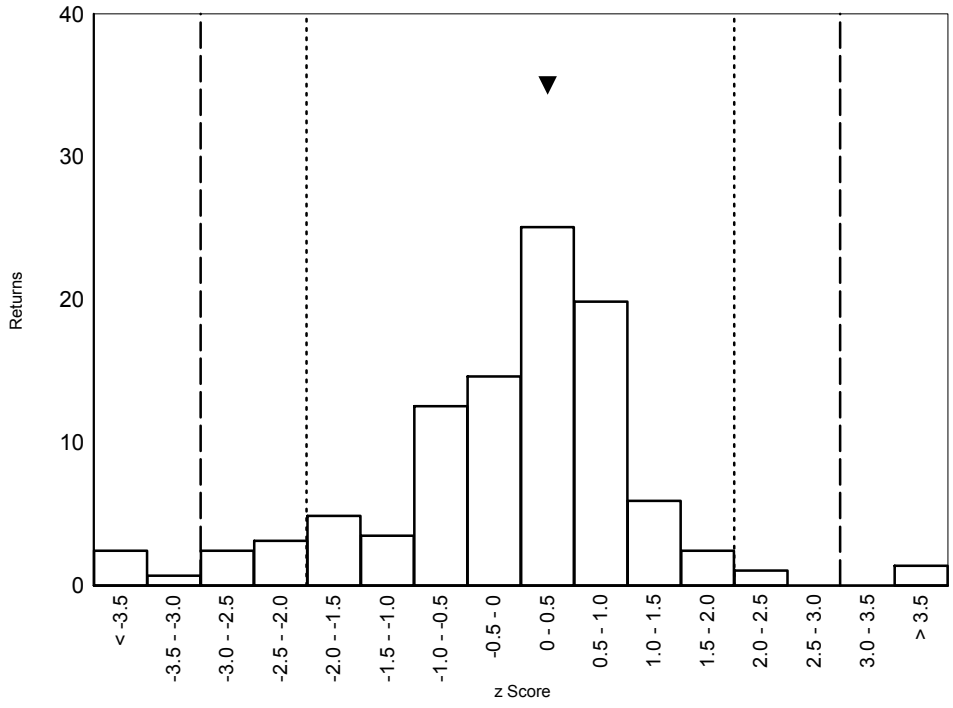
Sample - 216

Histograms of Participant z Scores

Absolute Values (cells/µL)
Please note ▼ denotes your result



Percentage Values (%)
Please note ▼ denotes your result



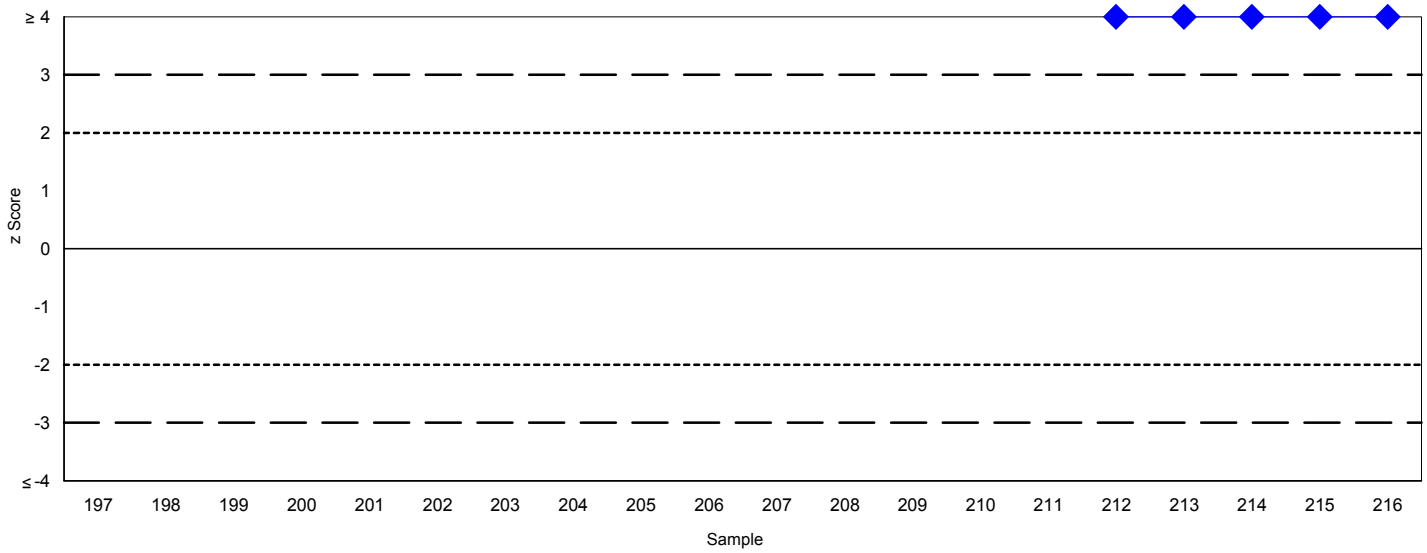
CD34 Stem Cell Programme

Sample - 216

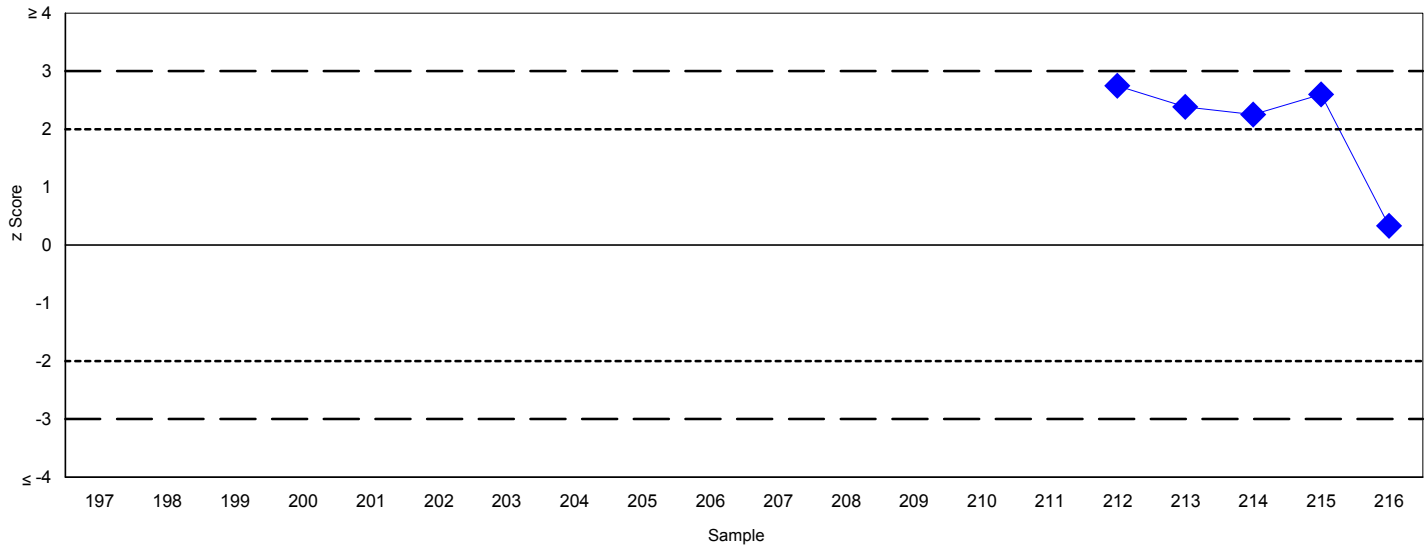
Shewhart Control Charts

(Please note each data point represents a single sample)

Absolute Values (cells/µL)



Percentage Values (%)



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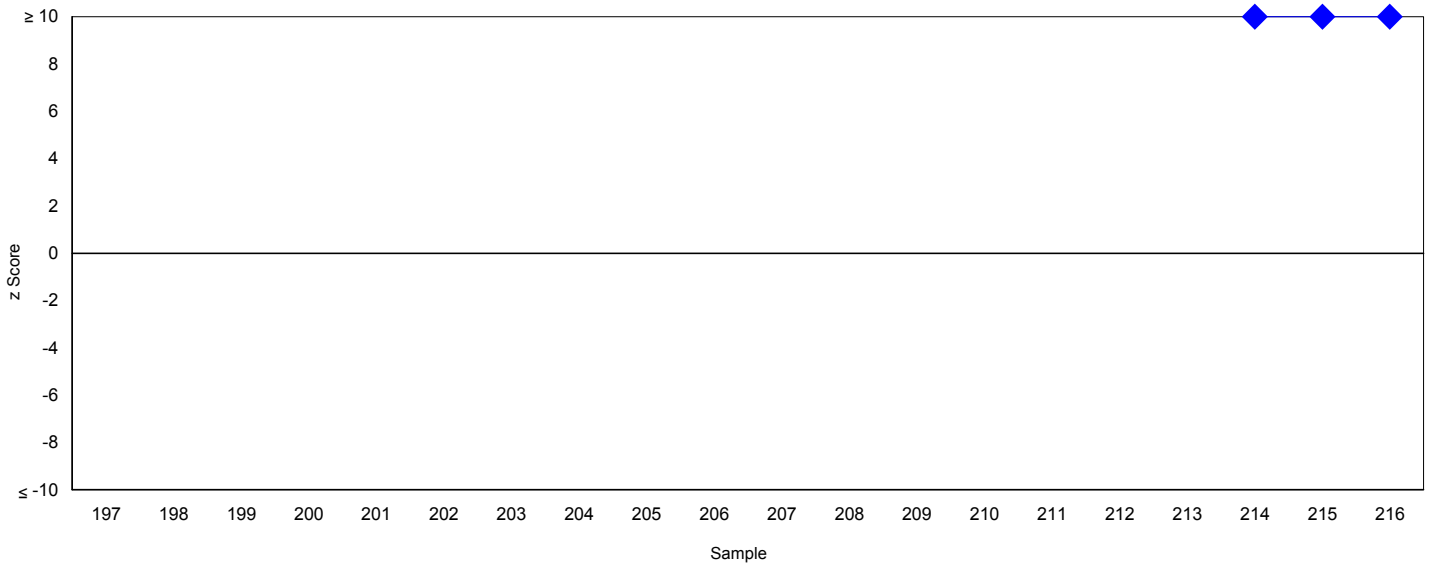
CD34 Stem Cell Programme

Sample - 216

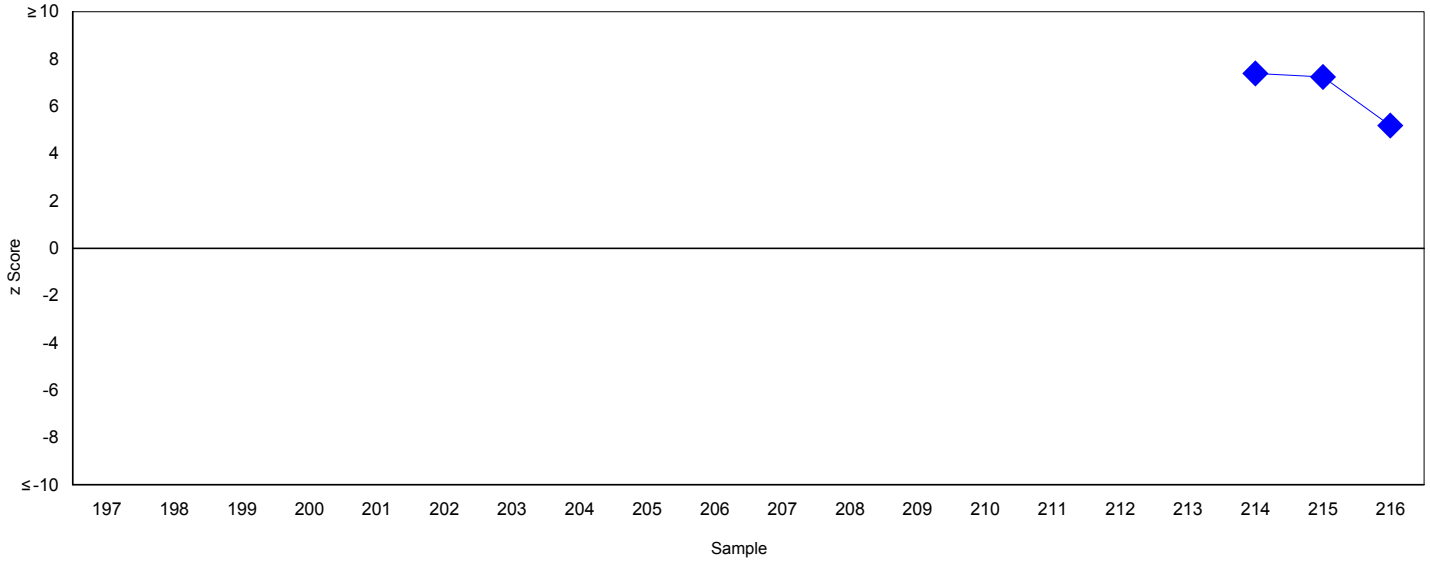
Cusum Control Charts

(Please note each data point represents the sum of the z scores of the current sample and the two previous samples)

Absolute Values (cells/µL)



Percentage Values (%)



CD34 Stem Cell Programme

Sample - 216

Platform Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
FLOW COUNT	88	21.98	2.29	88	0.78	0.08
HAEMATOLOGY ANALYSER WBC	28	21.32	2.94	29	0.75	0.09
TRUCOUNT	156	21.76	2.09	150	0.77	0.08

Lysing Method Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
Ammonium Chloride (NH4CL)	124	21.89	2.21	124	0.77	0.09
Facslyse	25	23.09	2.29	25	0.80	0.10
Pharmlyse	52	21.44	1.92	47	0.75	0.08
Stem Kit Lyse	55	21.87	2.08	55	0.78	0.07

Antibody Fluorochrome Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
PE	287	21.83	2.27	282	0.77	0.09

Flow Cytometer Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
Facscalibur	44	20.96	2.37	41	0.74	0.08
Facscanto	20	21.84	2.08	-	-	-
Facscanto II	114	21.99	2.05	111	0.78	0.07
FC 500.	57	21.91	2.62	59	0.77	0.09
Navios	43	22.14	2.27	43	0.76	0.10

Gating Strategy Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
BD STEM CELL ENUMERATION KIT	57	21.69	1.69	56	0.77	0.06
ISHAGE	197	21.89	2.48	193	0.77	0.09
STEM KIT	33	21.91	1.75	33	0.77	0.08

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Trial Comments

The CD34 trial 151603 was issued to 315 participants for flow cytometric enumeration of CD34+ stem cells.

Sample Comments

The sample was manufactured by UK NEQAS using stabilised CD34+ samples and stabilised leucodepleted blood

Absolute Values Results and Performance

Please note: Performance monitoring for this programme is on absolute values only. Percentage results are shown for information purposes only.

Cell Population	Your Results (cells/µL)	Robust Mean (cells/µL)	Robust SD (cells/µL)
CD34 Absolute Values	19.40	8.09	0.90

Cell Population	z Score*	Performance Status for this Sample	Performance Status Classification Over 12 Sample Period		
			Satisfactory	Action	Critical
CD34 Absolute Values	12.57	Critical	0	2	6

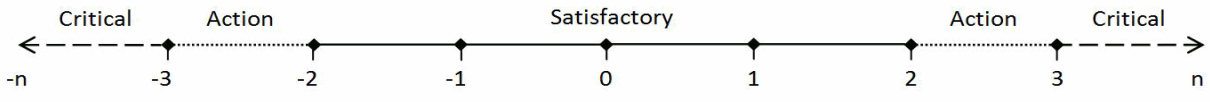
Percentage Values Results and Performance

Cell Population	Your Results %	Robust Mean %	Robust SD %
CD34 Percentage Values	0.33	0.23	0.03

Cell Population	z Score*	Performance Status for this Sample	Performance Status Classification Over 12 Sample Period		
			Satisfactory	Action	Critical
CD34 Percentage Values	3.33	Critical	1	6	1

***z Score Limits Definitions**

Please note the scale below is applicable to the tables above and to the z score histograms and Shewhart control charts that follow. It is not applicable to the Cusum control charts.



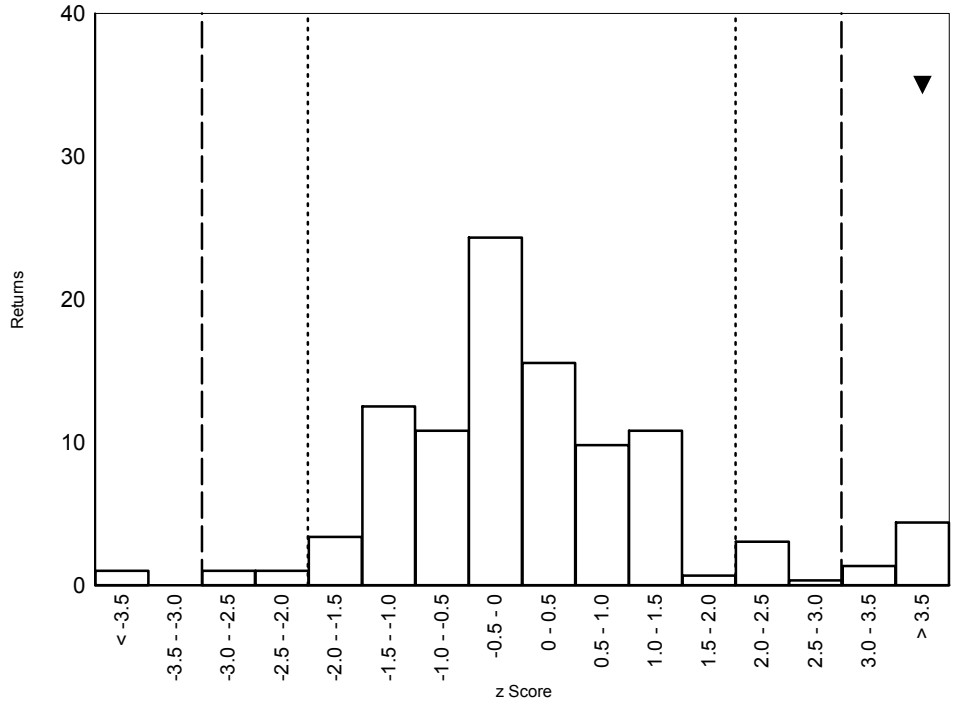
CD34 Stem Cell Programme

Sample - 217

Histograms of Participant z Scores

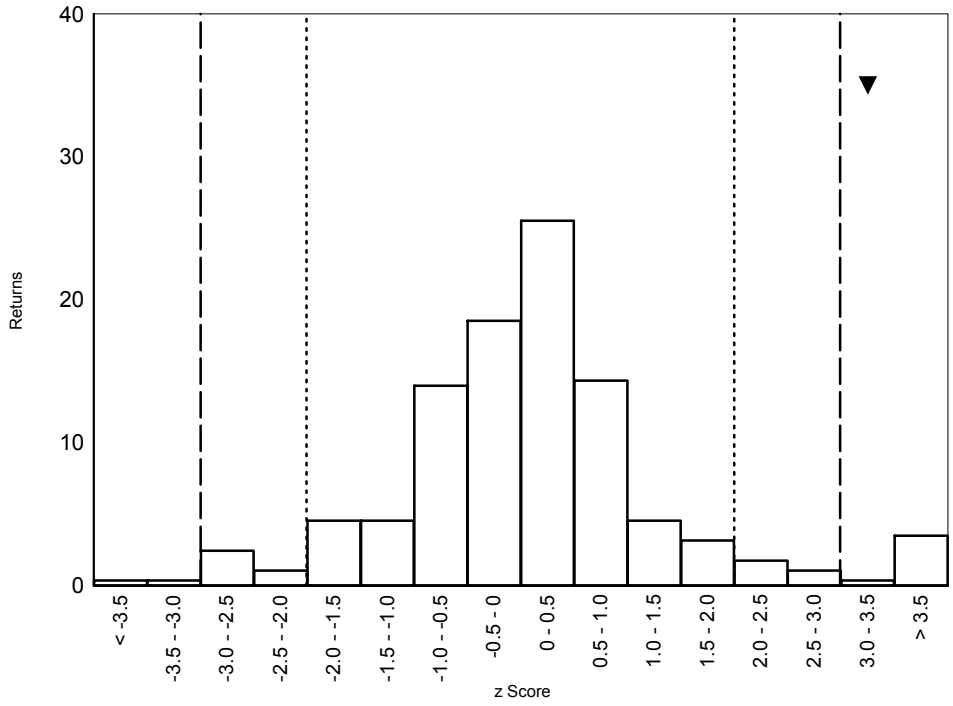
Absolute Values (cells/µL)

Please note ▼ denotes your result



Percentage Values (%)

Please note ▼ denotes your result



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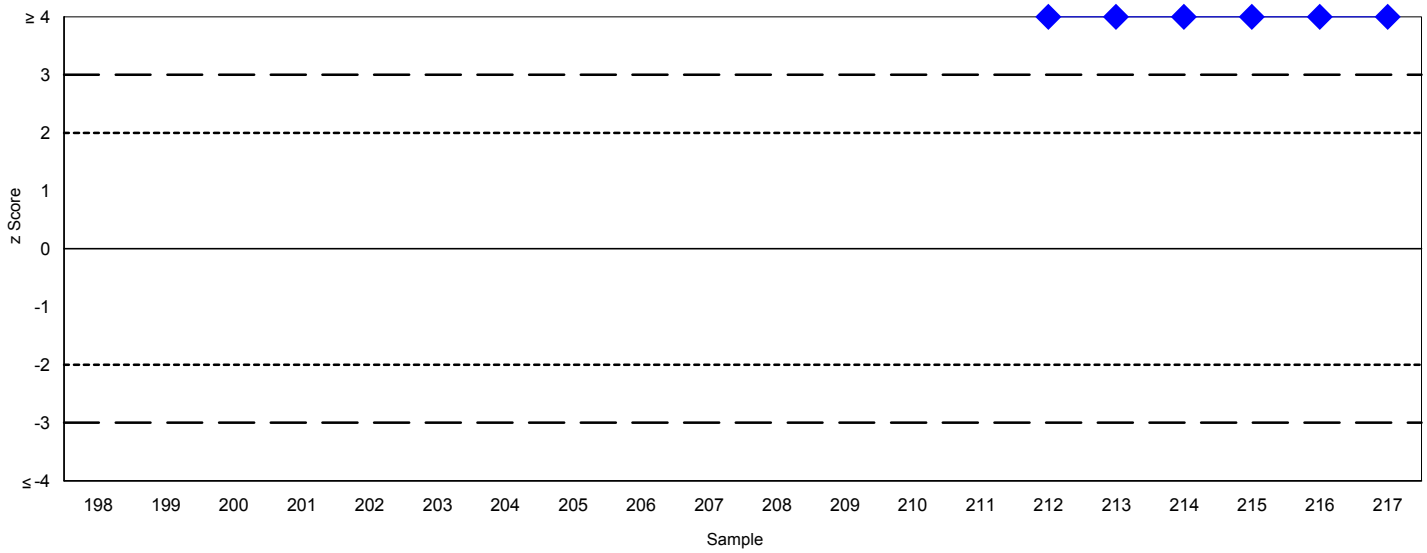
Sample - 217

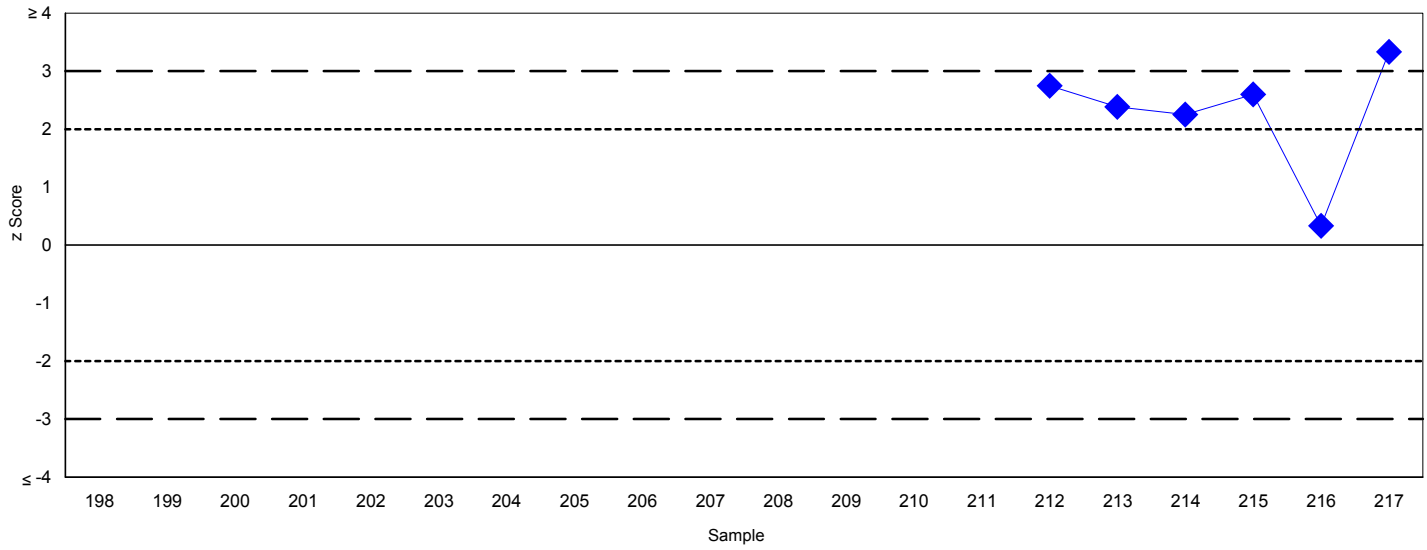
Shewhart Control Charts

(Please note each data point represents a single sample)

Absolute Values (cells/µL)



Percentage Values (%)



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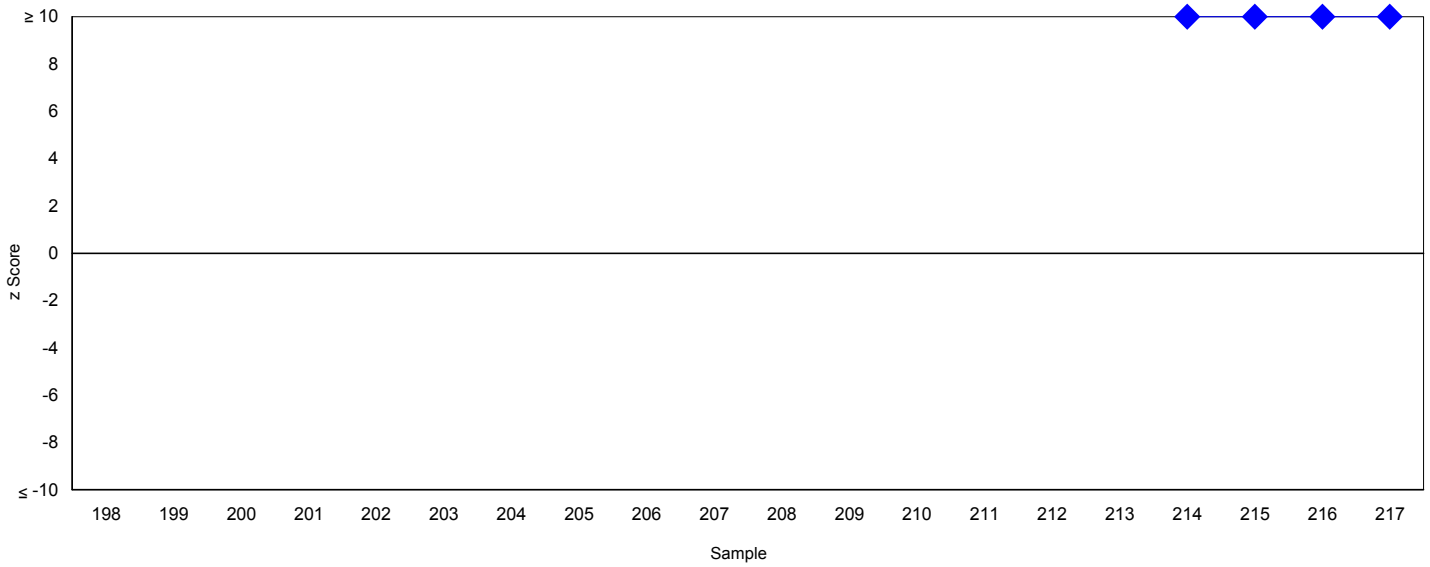
Sample - 217

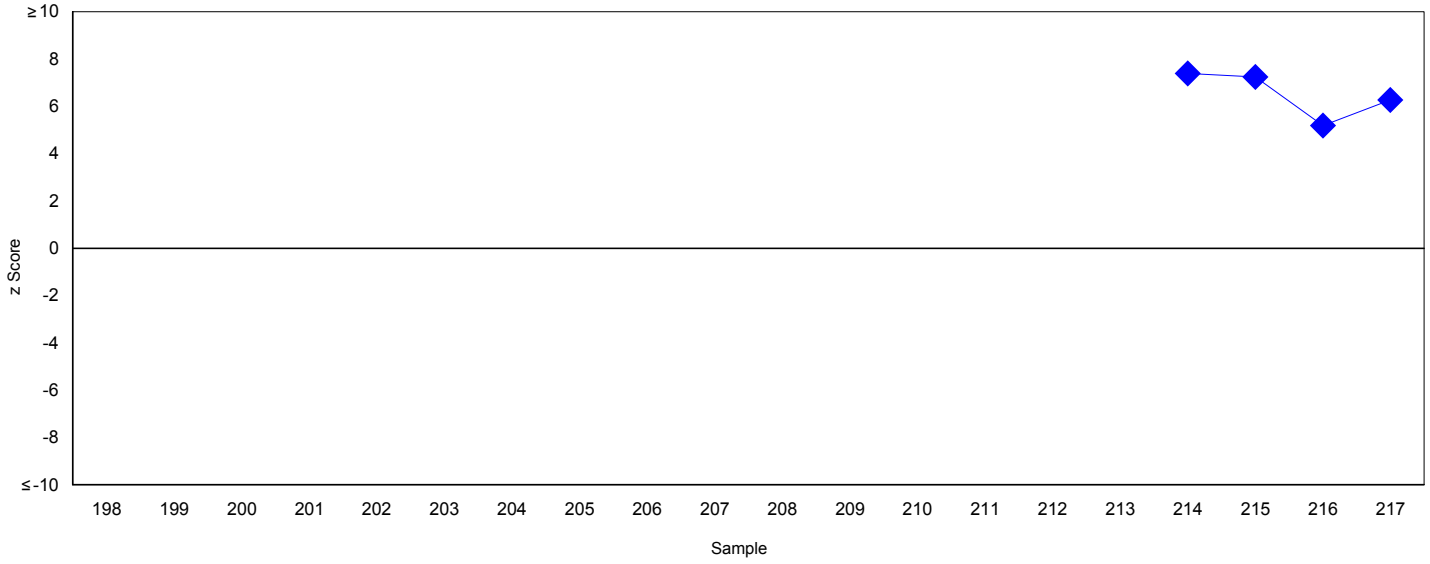
Cusum Control Charts

(Please note each data point represents the sum of the z scores of the current sample and the two previous samples)

Absolute Values (cells/µL)



Percentage Values (%)



CD34 Stem Cell Programme

Sample - 217

Platform Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
FLOW COUNT	88	8.25	0.85	88	0.23	0.03
HAEMATOLOGY ANALYSER WBC	28	8.19	1.09	29	0.23	0.03
TRUCOUNT	155	8.03	0.89	149	0.23	0.03

Lysing Method Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
Ammonium Chloride (NH4CL)	124	8.12	0.87	124	0.23	0.03
Facslyse	25	8.04	1.07	25	0.23	0.03
Pharmlyse	51	7.94	0.78	46	0.23	0.03
Stem Kit Lyse	55	8.16	0.78	55	0.23	0.03

Antibody Fluorochrome Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
PE	284	8.10	0.91	280	0.23	0.03

Flow Cytometer Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
Facscalibur	43	7.99	0.94	41	0.22	0.03
Facscanto	20	7.68	0.65	-	-	-
Facscanto II	114	8.14	0.87	110	0.23	0.02
FC 500.	57	8.18	0.86	59	0.23	0.04
Navios	43	8.31	1.24	43	0.23	0.04

Gating Strategy Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Absolute Count Values (cells/µL)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
BD STEM CELL ENUMERATION KIT	57	8.04	0.80	56	0.23	0.02
ISHAGE	196	8.11	0.99	192	0.23	0.03
STEM KIT	33	8.06	0.33	33	0.23	0.03

Information with respect to compliance with standards BS EN ISO/IEC 17043:2010

4.8.2 a) The proficiency testing provider for this programme is:
UK NEQAS for Leucocyte Immunophenotyping
Pegasus House, 4th Floor Suite
463A Glossop Road
Sheffield, S10 2QD
United Kingdom
Tel: +44 (0) 114 267 3600, Fax: +44 (0) 114 267 3601
e-mail: nicola.rose@ukneqasli.co.uk

4.8.2 b) The coordinators of UK NEQAS LI programmes are Prof David Barnett and Mr Liam Whitby.

4.8.2 c) Person(s) authorizing this report:
Prof David Barnett, Director or Mr Liam Whitby, Operations Manager of UK NEQAS LI

4.8.2 d) No activities in relation to this EQA exercise were subcontracted.

4.8.2 g) The UK NEQAS LI Confidentiality Policy can be found in the Quality Manual which is available by contacting the UK NEQAS LI office. Participant details, their results and their performance data remain confidential unless revealed to the relevant NQAAP when a UK participant is identified as having performance issues.

4.8.2 i) All EQA samples are prepared in accordance with strict Standard Operational Procedures by trained personnel proven to ensure homogeneity and stability. Where appropriate/possible EQA samples are tested prior to issue. Where the sample(s) issued is stabilised blood or platelets, pre and post stability testing will have proved sample suitability prior to issue.

4.8.2 l), n), o), r) & s) Please refer to the UK NEQAS LI website at www.ukneqasli.co.uk for detailed information on each programme including the scoring systems applied to assess performance. Where a scoring system refers to the 'consensus result' this means the result reported by the majority of participants for that trial issue. Advice on the interpretation of statistical analyses and the criteria on which performance is measured is also given. Please note that where different methods/procedures are used by different groups of participants these may be displayed within your report, but the same scoring system is applied to all participants irrespective of method/procedure used.

4.8.2 m) We do not assign values against reference materials or calibrants.

4.8.2 q) Details of the programme designs as authorized by The Steering Committee and Specialist Advisory Group can be found on our website at www.ukneqasli.co.uk. The proposed trial issue schedule for each programme is also available.

4.8.2 t) If you would like to discuss the outcomes of this trial issue, please contact UK NEQAS LI using the contact details provided.